

What is claimed is:

1. A network connection control apparatus for granting or rejecting access when a device on a global network demands access to services provided on a local network, comprising:

authentication means for authenticating the device on said global network;

access permission entry creating means for creating an access permission entry in response to an access request from the device authenticated by said authentication means, and adding said access permission entry to an access permission list; and

control means which, upon receiving a data packet sent from the device on said global network, determines whether or not said data packet should be transferred to said local network based on information extracted from the header of said data packet and on the access permission entry contained in said access permission list.

2. A network connection control apparatus according to Claim 1, wherein said access permission entry creating means extracts access information from an access request packet transmitted from the authenticated device, thereby creating an access permission entry containing a source IP address, a

destination IP address, a source port number, a destination port number and a last access permission time.

3. A network connection control apparatus according to Claim 1, wherein said control means extracts a source IP address, a destination IP address, a source port number and a destination port number from the header of the data packet transmitted from the device on said global network, compares these extracted items of information with the information about the access permission entry contained in said access permission list, and transfers said data packet to said local network if the two pieces of information correspond in all of the source IP address, destination IP address, source port number and destination port number.

4. A network connection control apparatus according to Claim 1, wherein said control means eliminates the access permission entry corresponding to a relevant access from said access permission list in accordance with an access termination notification from the device on said global network.

5. A network connection control apparatus according to Claim 1, wherein said control means calculates the length of time which elapsed from the last access based on a last

access permission time stored in the access permission entry which corresponds to the time at which the data packet was received from the device on said global network, and eliminates the access permission entry from said access permission list when the elapsed time exceeds a predetermined reference time.

6. A network connection control apparatus according to Claim 1, further comprising storage means for storing said access permission list.

7. A network connection control method for granting or rejecting access when a device on a global network demands access to services provided on a local network, comprising the steps of:

authenticating the device on said global network;

creating an access permission entry in response to an access request from the authenticated device and adding the access permission entry to an access permission list;

determining, upon receiving a data packet from a device on said global network, whether or not said data packet should be transferred to said local network based on information extracted from the header of said data packet and on the access permission entry contained in said access permission list.

8. A network connection control method according to Claim 7, wherein, in the step of creating the access permission entry, access information is extracted from an access request packet transmitted from the authenticated device, so that an access permission entry can be created which contains a source IP address, a destination IP address, a source port number, a destination port number and a last access permission time.

9. A network connection control method according to Claim 7, wherein a source IP address, a source port number, a destination IP address and a destination port number are extracted from the header of the data packet transmitted from the device on said global network, and the extracted items of information are compared with information about the access permission entry contained in said access permission list, whereby said data packet is transferred to said local network if the two pieces of information correspond in all of the source IP address, destination IP address, source port number and destination port number.